

Scope of Accreditation



Page 1 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

P.O. Box 47299
Kings Bay, GA 31547
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Phone: 912-673-2927 x1850 Fax: 912-673-3609

DIMENSIONAL

NVLAP Code: 20/D03

Gage Blocks - Steel and Chrome Carbide

<i>Range in inches</i>	<i>Best Uncertainty (\pm) in μ inches^{note 1,2}</i>	<i>Remarks</i>
0.01 to 0.09375	4.6	Mechanical Comparison
0.1 to 0.100025	3.9	Mechanical Comparison
0.10005 to 1.0	3.6	Mechanical Comparison
2.0 to 4.0	$3.0 + 0.6 \times 10^{-6}L$	Mechanical Comparison
5.0 to 20.0	$8.8 + 0.2 \times 10^{-6}L$	Mechanical Comparison

Gage Blocks - Ceramic

0.01 to 0.09375	5.6	Mechanical Comparison
0.1 to 0.100025	4.9	Mechanical Comparison

March 31, 2001

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Scope of Accreditation



Page 2 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

0.10005 to 1.0	4.6	Mechanical Comparison
2.0 to 4.0	$4.0 + 0.6 \times 10^{-6}L$	Mechanical Comparison

NVLAP Code: 20/D07
Measuring Wires

<i>Range in inches</i>	<i>Best Uncertainty (\pm) in μ inches^{note 1}</i>	<i>Remarks</i>
0.007227 (80 TPI) to 0.14434 (4 TPI)	13	Universal Measuring Machine

NVLAP Code: 20/D11
Spherical Diameter, Plug/Ring Gages

<i>Range in inches</i>	<i>Best Uncertainty (\pm) in μ inches^{note 1,2}</i>	<i>Remarks</i>
Ring Gages		
0.25 to 4.99	$5.6 + 0.5 \times 10^{-6}L$	Comparison to Gage Blocks
5.0 to 12.0	$8.8 + 0.6 \times 10^{-6}L$	Comparison to Gage Blocks

March 31, 2001

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David F. Alderman

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Scope of Accreditation



Page 3 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

Plug Gages

> 0 to 4.99	$6.0 + 0.6 \times 10^{-6}L$	Comparison to Gage Blocks
5.0 to 12.0	$8.8 + 0.6 \times 10^{-6}L$	Comparison to Gage Blocks

NVLAP Code: 20/D14
Threaded Plug and Ring Gages

Threaded Plug Gages, 60° Unified

	<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1,2}</i>	<i>Remarks</i>
Pitch Diameter	> 0 to 6.0 in	$(61 + 0.7 \times 10^{-6}L) \mu\text{in}$	Three Wire Method
Major Diameter	1.0 to 6.0 in	$(35 + 1.1 \times 10^{-6}L) \mu\text{in}$	Universal Measuring Machine
Half Angle	60°	3 arc minutes	Optical Comparator Inspection
Pitch	4 to 80 TPI	28 μin	Universal Measuring Machine

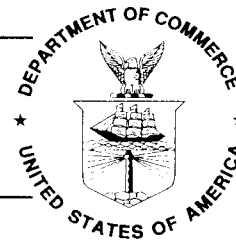
March 31, 2001

Effective through

David F. Alderman

For the National Institute of Standards and Technology

Scope of Accreditation



Page 4 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

Threaded Ring Gages, Solid, 60° Unified

	<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Pitch Diameter	>0 to 3.1 in	55 μ in	Universal Measuring Machine
Minor Diameter	>0 to 0.272 in	55 μ in	Compared to Go/NoGo Plugs
Minor Diameter	0.273 to 0.499 in	150 μ in	Measured with Bore Micrometers
Minor Diameter	0.5 to 3.999 in	250 μ in	Measured with Bore Micrometers
Minor Diameter	4.0 to 8.0 in	600 μ in	Measured with Bore Micrometers
Half Angle	60°	4 arc minutes	Optical Inspection of Thread Casting

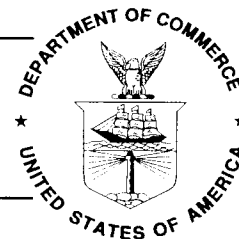
March 31, 2001

David F. Alderman

Effective through

For the National Institute of Standards and Technology

Scope of Accreditation



Page 5 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

Threaded Ring Gages, Split, 60° Unified

	<i>Range</i>	<i>Best Uncertainty (\pm)^{note 1}</i>	<i>Remarks</i>
Functional Diameter	>0 to 6 in, 4 to 80 TPI	83 μ in	Fit Test with Class W Thread Plug
Minor Diameter	>0 to 0.272 in	55 μ in	Compared to Go/NoGo Plugs
Minor Diameter	0.273 to 0.499 in	150 μ in	Measured with Bore Micrometers
Minor Diameter	0.5 to 3.999 in	250 μ in	Measured with Bore Micrometers
Minor Diameter	4.0 to 8.0 in	600 μ in	Measured with Bore Micrometers

March 31, 2001

David F. Alderman

Effective through

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ISO/IEC GUIDE 25:1990
ANSI/NCSL Z540-1-1994
ISO 9002:1987

Scope of Accreditation



Page 6 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

ELECTROMAGNETICS - DC/LOW FREQUENCY

NVLAP Code: 20/E05

DC Resistance

<i>Range in ohms</i>	<i>Best Uncertainty (\pm) in ppm^{note 1}</i>	<i>Remarks</i>
1.0	2	Using Guildline Bridge
10.0	2	Using Guildline Bridge
100.0	2	Using Guildline Bridge
1000.0	2	Using Guildline Bridge
10000.0	2	Using Guildline Bridge
100000.0	2	Using Guildline Bridge
0.01	0.2 (in %)	Using 242D System
0.1	200	Using 242D System
1.0	20	Using 242D System
10.0	10	Using 242D System
100.0	10	Using 242D System

March 31, 2001

Effective through

David F. Alderman

For the National Institute of Standards and Technology

ISO/IEC GUIDE 25:1990
ANSI/NCSL Z540-1-1994
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Scope of Accreditation



Page 7 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

1000.0	10	Using 242D System
10000.0	10	Using 242D System
100000.0	10	Using 242D System
1.0 M	10	Using 242D System
10.0 M	10	Using 242D System
100.0 M	15	Using 242D System

NVLAP Code: 20/E06
DC Voltage - Generation

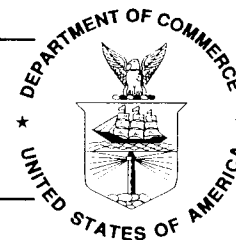
Range (\pm)	Best Uncertainty (\pm) in ppm ^{note 1,2}	Remarks
0.1 V	3.0	
0.2 V	2.1	
1.0 V	1.8	
2.0 V	1.8	
10.0 V	1.8	
20.0 V	1.8	

March 31, 2001

Effective through

David F. Alderman

For the National Institute of Standards and Technology



ISO/IEC GUIDE 25:1990
ANSI/NCSL Z540-1-1994
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Scope of Accreditation

Page 8 of 8

CALIBRATION LABORATORIES

NVLAP LAB CODE 200403-0

SWFLANT CALIBRATION LABORATORY OPERATED BY LOCKHEED MARTIN

100.0 V	1.8
200.0 V	2.0
1000.0 V	2.0

DC Voltage - Measurement

0.1 V	4.0
0.2 V	3.0
1.0 V	3.0
2.0 V	3.0
10.0 V	3.0
20.0 V	3.0
100.0 V	3.0
200.0 V	3.0
1000.0 V	3.0

1. Represents an expanded uncertainty using a coverage factor, $k=2$.
2. L is length or diameter in inches.

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